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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
TANG, KENNETH

ART UNIT	PAPER NUMBER
2127	

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>06 October 2003</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-18</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-18</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>24 January 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>10/6/03</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claim 1-18 are presented for examination.

Specification

2.   Applicant is required to update the current status information of any Related Applications

in the introductory paragraph of the specification.

Claim Objections

3.   Claim 2 is objected to because of the following informalities: In line 3, a semicolon (';')

is missing. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
subject matter which the applicant regards as his invention.

4.   Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. The term "a palm device" is indefinite because it is unclear whether this refers to

a personal digital assistant (PDA) or "a palm device" like a Palm Pilot[TM].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1- 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson et al. (hereinafter Atkinson) (US 2002/0012329 A1) in view of French-St. George et al. (hereinafter French-St. George) (US 6,012,030).

6.   As to claim 18, Atkinson teaches a multi-tier system for providing vendor-neutral communication to mobile devices *(page 3, [0023])* comprising:

a client device having a virtual machine capable of processing device-independent applications *(page 2, [0020])*,

a plurality of servers providing a plurality of services to said client device in the form of said device-independent applications *(page 5, [0050])*;

a gateway for preprocessing communications between said client device and said plurality of sewers thereby reducing processing requirements on said client device *(page 1, [0012] through page 2, [0013])*;

a plurality of peer-to-peer communication layers between said plurality of servers and said client device through said gateway, said gateway providing protocol translation between said plurality of servers and said client device *(page 6, [0051], page 2, [0021])*;

a manager object in said client device for managing said device-independent applications *(page 3, [0024], page 5, [0050], claim 9)*

7.   Atkinson fails to explicitly teach each of said device-independent applications having a

plurality of states, wherein said plurality of states comprises an initialization state, a background

state, a foreground state, a destroy state, and a paused state.

8.   However, French-St. George teaches using a hand held portable device that provides

switching between a foreground and background state of an interface *(col. 5, lines 8-20)*. It

would have been obvious to one of ordinary skill in the art at the time the invention was made to

include the feature of using a hand held portable device that provides switching between a

foreground and background state of an interface in order to gain the advantage of conserving

processing power by placing inactive applications in the foreground until it is required, where

switching to the background will then occur *(col. 5, lines 12-20)*.

9.   In addition, Atkinson and French-St. George fails to explicitly teach an initialization

(start) state, a destroy (end) state, and a paused state. However, "Official Notice" is taken that

both the concept and advantages of providing that an initialization (start) state, a destroy (end)

state, and a paused state is well known and expected in the art. It would have been obvious to

one of ordinary skill in the art at the time the invention was made to include an initialization

(start) state, a destroy (end) state, and a paused state to the existing system and method of

Atkinson and French-St. George because these are simply the controls that allow for the

switching between the background and foreground. Without such controls, the switching would

not be able to occur.

10.   As to claim 17, it is rejected for the same reasons as stated in the rejection of claim 18

above. In addition, Atkinson teaches a framework for the mobile devices *(page 5, [0050], page*

12, [0102], page 13, [0104]).

        As to claim 1, it is rejected for the same reasons as stated in the rejection of claim 18

above. In addition, Atkinson teaches a framework for the mobile devices *(page 5, [0050], page*

12, [0102], page 13, [0104]).

11.   As to claim 2, Atkinson teaches wherein said plurality of peer-to-peer layers comprises:

at least one physical data link layer, a network layer, a transport layer, a session layer, a

presentation layer; and an applications layer *(page 1, [0012], pages 1-2, [0013], page 2, [0020]*

and [0022], page 3, [0025] and [0027], page 4, [0034]).

12.   As to claim 3, Atkinson teaches wherein said at least one physical data link layer

comprises landline communication between said third tier and said second tier, and wireless

communication between said second tier and said first tier *(page 5, [0050], page 6, [0051], page*

2, [0021]).

13.   As to claim 4, Atkinson teaches wherein said network layer uses Internet Protocol

communication between said third tier and said second tier, and wireless applications protocol

between said second tier and said first tier *(page 5, [0050], page 6, [0051], page 2, [0021], page*

3, [0025]).

14.　　As to claim 5, Atkinson teaches wherein said transport layer uses transport control protocol between said third tier and said second tier, and wireless applications protocol between said second tier and said first tier *(page 5, [0050], page 6, [0051], page 2, [0021], page 3, [0025])*.

15.　　As to claim 6, Atkinson teaches wherein said session layer uses hypertext transport protocol between said third tier and said second tier and amongst services in said third tier, and wireless applications protocol between said second tier and said first tier *(page 5, [0050], page 6, [0051], page 2, [0021], page 3, [0025])*.

16.　　As to claim 7, Atkinson teaches wherein said presentation layer uses a markup language between said third tier and said second tier, and a wireless markup language between said second tier and said first tier *(page 3, [0025])*.

17.　　As to claim 8, Atkinson teaches wherein said application layer prepares graphical data for presentation, said graphical data being available in any suitable graphical format and communicated from said third tier to said second tier, said second tier converting said graphical data to a wireless graphics format for transmission to said first tier *(pages 12-13, [0102])*.

18.　　As to claim 9, Atkinson teaches wherein said first tier is a wireless device *(page 1-2, [0013])*.

19.   As to claim 10, Atkinson teaches wherein said wireless device is a cellular phone *(page 1, [0003])*.

20.   As to claim 11, Atkinson teaches wherein said wireless device is a palm device *(page 1, [0003])*.

21.   As to claim 12, Atkinson teaches wherein said wireless device includes a software architecture comprising a real-time operating system layer, a virtual machine layer having at least one system class, an application layer *(page 2, [0016] and [0020], page 3, [0027])*.

22.   As to claim 13, Atkinson teaches wherein said real-time operating system layer comprises a wireless small device operating system, a plurality of linking and networking application programming interfaces, and an object for updating and installing software in said wireless device *(page 1, [0004], page 3, [0023], page 5, [0050], page 6, [0051], page 2, [0021], page 3, [0025])*.

23.   As to claim 14, it is rejected for the same reasons as stated in the rejections of claims 1 and 18.

24.   As to claim 15, it is rejected for the same reasons as stated in the rejections of claim 18.

25.   As to claim 16, it is rejected for the same reasons as stated in the rejections of claim 18.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (703) 305-5334. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kt
7/25/04

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